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Agriculture Memorandum No 557

Twelve year pig deaths data - monthly analysis L P SMITH

The data referred to in Ag Mem 556 was analysed on a monthly basis in the style of Ag Mem 535 (which used daily data of daytime temperatures).

The results for total deaths (DOA and DIP), were

Range (°C)	January - July		August - December		Whole year	
	Occasions	d	Occasions	d	Occasions	d
-1 - 4.9	8	0.63	4	0.53	12	0.59
3.0 to 5.9	15	0.63	8	0.52	23	0.60
4.0 to 6.9	22	0.61	9	0.61	31	0.61
5.0 to 7.9	21	0.66	14	0.69	35	0.67
6.0 to 8.9	17	0.69	13	0.76	30	0.72
7.0 to 9.9	15	0.73	12	0.74	27	0.74
8.0 to 10.9	17	0.76	7	0.82	24	0.78
9.0 to 11.9	13	0.81	4	0.81		
10.0 to 12.9	12	0.92	7	1.05		
11.0 to 13.9	10	1.01	9	1.10		
12.0 to 14.9	13	1.06	14	1.12		
13.0 to 15.9	12	1.21	12	1.12		
14.0 to 16.9	13	1.36	14	1.13		
15.0 to 17.9	16	1.50	18	1.20		
16.0 to 18.9	16	1.55	19	1.24		
17.0 to 19.9	15	1.66				

This confirms the results of the previous study, namely that there is a small increase of death risk in the temperature range below about 9°C with little difference between the seasons.

Above 9°C the rise in death risk with daytime temperature is twice as rapid during the season of rising temperatures, than in the season of falling temperatures in late summer and early autumn

Note: The absolute figures in Ag Mems 557 and 535 are not strictly comparable as the temperature parameter is different. (Mean monthly against daily values). Correlations are as follows:-

	Jan - July	Aug - Dec	Whole Year
Below 9°C	0.91	0.96	0.93
Above 9°C	0.99	0.93	

Any comments or suggestions on this paper should be referred to the author.

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